AMENDMENTS TO THE SPECIFICATION

Please amend the original specification as follows:

1. On page 1, between the title of the invention in line 1 and the first paragraph starting in line 2, insert the following:

-- BACKGROUND OF THE INVENTION

Field of the Invention --

2. On page 1, between line 3 and line 4, i.e., between 1st and 2nd paragraphs, insert the following:

-- Description of Related Art --

3. The first paragraph on page 3 is amended to read:

A disadvantage of such known compressors with a fixed speed limiter is that the set speed range which is determined on the basis of a worst case scenario, assuming the most adverse circumstances, is in fact too restricting for circumstances which are less adverse, such as for example in case of lower temperatures, allowing in principle for a higher speed range without exceeding the aforesaid maximum critical threshold value of the temperature on the outlet of the compressor element. This implies that the capacity of such a compressor cannot be used to the full as far as the delivered gas flow is concerned in circumstances which deviate from the aforesaid worst case scenario.

4. The paragraph bridging pages 3 and 4 is amended to read:

To this aim, the invention concerns an improvement to a compressor of the above-mentioned type which consists in that the compressor is provided with a dynamic speed limiter with what is called a hysteresis module, coupled to the above-mentioned control device of the motor and to the above-mentioned sensors for the outlet temperature and the rotational speed, whereby a hysteresis upper temperature limit [[has] and a hysteresis lower temperature limit have been defined in this hysteresis module, as well as an admitted maximum speed range which is determined by a minimum rotational speed and a maximum rotational speed and whereby, as soon as the measured outlet temperature reaches the specified hysteresis upper temperature limit, the actual rotational speed of the compressor element is ~~either~~ lowered with a speed jump DS (i.e., an amount of speed change in RPM) when the measured rotational speed is situated in the high speed range close to the maximum rotational speed, or as soon as the measured gas outlet temperature reaches the specified hysteresis lower temperature limit, the actual rotational speed of the compressor element is increased with a speed jump DS when the measured rotational speed is situated in the low speed range close to the minimum rotational speed.

5. On page 5, between line 18 and line 19, i.e., between 4th and 5th paragraphs, insert the following:

-- BRIEF DESCRIPTION OF THE DRAWINGS --

6. On page 6, between line 5 and line 6, insert the following:

--DETAILED DESCRIPTION OF THE EMBODIMENTS OF THE INVENTION --

7. The 3rd full paragraph on page 7 is amended to read:

In FIG. 1 is also indicated the maximum critical threshold value TMAX of the outlet temperature TO above which the compressor must be stopped in order to prevent the coatings on the compressor element and on the downstream parts of the compressor to become damaged due to the excessive heat of the compressed gases.

8. The 4th full paragraph on page 7 is amended to read:

It is clear that, because of this temperature threshold TMAX, the admitted speed range of the compressor at an ambient temperature T1 is limited by a lower threshold value OG1 and an upper threshold value BG1. For the higher temperatures T2 and T3, the admitted (i.e., permitted) speed range of the compressor is smaller and will be situated between OG2 and OG3 respectively, and between BG2 and BG3 respectively.

9. The 1st full paragraph on page 9 is amended to read:

It is clear that the maximum critical threshold value TMAX of the outlet temperature will never be reached in this case, and that the speed limits are automatically adjusted to less favourable circumstances, such as for example a higher ambient temperature, such that the speed limits must not be unnecessarily restricted, as is the case with conventional compressors, to a much smaller speed range, dictated by a hypothetical worst case situation.

10. The 4th paragraph on page 11 is amended to read:

The dynamic speed limiter is preferably provided with safety devices, for example in order to prevent that the speed exceeds an admitted maximum speed SMAX and/or in order to prevent that the speed drops below an admitted minimum speed SMIN and/or in

order to prevent that the admitted maximum critical outlet temperature TMAX is exceeded during a certain time, etc.

11. The paragraph bridging page 11 and page 12 is amended to read:

The dynamic speed limiter is preferably programmed in order to obtain an almost optimal operation of the compressor with a speed range larger than 2.5, preferably between 2.7 and 3.5, and it can be adjusted such that at least the admitted maximum critical outlet temperature TMAX can be set, preferably between 150° C and 350° C., better still between 200° C and 300° C.

12. The paragraph bridging page 12 and page 13 is amended to read:

This speed limiter comprises:
- a means 10 for receiving ~~a~~ an outlet temperature TO signal from the temperature sensor;
- a means 11 for receiving a signal from the rotational speed sensor of the compressor;
- a control device 12 for regulating the speed of the motor which drives the rotating element of the compressor, for example as a function of the load of the compressor element, within a specified maximum speed range (SMIN-SMAX), determined by limitations on the rotating parts;
- a hysteresis module 13 for adjusting the speed as a function of the signals (outlet temperature TO and number of revolutions S) of the means 10 and the means 11, whereby this hysteresis module 13 may have a memory with possibly a number of outlet temperature curves and/or whereby this hysteresis module 13 may be programmed in the control device 12;
- a safety means 14 to stop the compressor, for example as soon as the outlet temperature TO exceeds a maximum critical threshold temperature TMAX;
- a memory 15 for a minimum speed, whereby this minimum speed is used as the initial speed to set the compressor back to work after it has run idle, and whereby this minimum

speed corresponds to the minimum speed after the last speed adjustment by the hysteresis module 13 in the lower rotational speed range of the compressor or with a minimum speed of 1500 to 2000 revolutions per minute (the minimum speed may also be a speed which is higher than the latter minimum speed, for example which is 10 to 30% higher than the latter minimum speed, with a minimum of 1750 revolutions per minute). The memory also contains the speed values which define the lower, higher speed zone respectively (SMIN-K and L-SMAX) where the dynamic speed adjustment applies. In the intermediate speed zone, the control does not apply. As soon as the outlet temperature TO reaches the HMAX value, it is determined in what speed zone the actual speed is situated, in order to thus implement the required speed adjustment, i.e. a speed increase, a speed decrease respectively, depending on whether the speed is situated in the lower speed zone (SMIN-K), the higher speed zone (L-SMAX) respectively.